

Title (en)

A ring valve assembly for a reciprocating fluid pump

Title (de)

Ringventilplattenanordnung für eine Fluidverdrängerpumpe

Title (fr)

Dispositif de soupape annulaire pour une pompe de fluide à mouvement alternatif

Publication

EP 0522745 B1 19960515 (EN)

Application

EP 92305789 A 19920624

Priority

- US 72103591 A 19910626
- US 89774092 A 19920618

Abstract (en)

[origin: EP0522745A1] A ring valve assembly for use in a reciprocating type fluid pump with a piston cylinder and a cylinder head includes a ring valve (50) having a fluid seal surface for selectively closing a fluid passage of a cylinder head and an annular ring retainer (115) having a fulcrum edge (115a) and tapered top surface (115b). The retainer (115) is positioned beneath the ring valve (50) and a slight clearance (C3) is designed in such that the ring valve (50) experiences as a first stage of movement/deflection slight vertical travel. Continued operation of the fluid pump results in a second stage of deflection where the ring valve (50) deflects into a frustoconical shape and lays against the tapered surface (115b) of the retainer (115), pivoting about the fulcrum edge (115a). <IMAGE>

IPC 1-7

F04B 39/10

IPC 8 full level

F04B 39/10 (2006.01); **F04B 53/10** (2006.01); **F16K 15/08** (2006.01)

CPC (source: EP US)

F04B 39/1033 (2013.01 - EP US); **F04B 39/1086** (2013.01 - EP US); **F04B 53/1075** (2013.01 - EP US); **Y10T 137/7888** (2015.04 - EP US)

Cited by

EP1116884A1; CN107208617A; US6382939B2; WO2011058030A1

Designated contracting state (EPC)

DE ES FR GB IT

DOCDB simple family (publication)

EP 0522745 A1 19930113; **EP 0522745 B1 19960515**; BR 9202405 A 19930126; DE 69210696 D1 19960620; DE 69210696 T2 19961002; JP H06147124 A 19940527; MX 9203491 A 19931201; US 5277560 A 19940111

DOCDB simple family (application)

EP 92305789 A 19920624; BR 9202405 A 19920625; DE 69210696 T 19920624; JP 19131092 A 19920626; MX 9203491 A 19920626; US 89774092 A 19920618